were considered. Patients with CHF and an EF<40% were compared to those with CHF and an EF≥40% and to those with no CHF. The comparison of outcomes was stratified by diabetes status and revascularization procedure. **Results:** Among patients with CHF, those with low EF were significantly younger, less frequently had hypertension, but more frequently had ECG abnormalities and triple vessel disease compared to those with EF≥40%.

Unadjusted 9-Year Survival by EF

	No CHF		CHF & EF_40%		CHF & EF<40%		2-way p-value
	N	9-Yr Survival	N	9-Yr Survival	N	9-Yr Survival	
All patients	2917	82%	167	56%	49	45%	0.07
No Diabetes	2451	84%	103	65%	31	58%	0.31
CABG	1000	85%	43	62%	19	63%	0.57
PTCA	1451	84%	60	67%	12	50%	0.48
Diabetes	466	68%	64	41%	18	22%	0.03
CABG	217	71%	30	52%	8	25%	0.04
PTCA	249	65%	34	32%	10	18%	0.25

After adjusting for baseline clinical factors and revascularization procedure, the risk of long-term mortality was the greatest in patients with CHF and EF<40% (HR=3.33, 95% CI 2.31-4.78, p<0.01), but also significantly higher in patients with CHF and EF≥40% (HR=1.66, 95% CI 1.31-2.10, p<0.01) than in patients with no CHF. The 9-year survival rate of diabetic patients with CHF and a low EF was extremely low at 22%. **Conclusion:** Among CHF patients undergoing revascularization, both low and normal EF significantly predict long-term survival. The absolute effect of CHF and low EF appears to be particularly important among patients with diabetes.

1138-64

Major Reduction in Adverse Outcomes of Patients With Congestive Heart Failure Undergoing Percutaneous Coronary Intervention: A Comparison of the National Heart, Lung, and Blood Institute 1985-1986 Percutaneous Transluminal Coronary Angioplasty Registry and the Current Dynamic Registry

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Background: Percutaneous coronary intervention (PCI) in patients with a history of congestive heart failure (CHF) has been associated with worse outcomes. However, little is know about these outcomes in the current era of improved CHF therapy and the widespread use of coronary stents. **Methods:** Utilizing patients from the NHLBI 1985-1986 PTCA Registry and the Dynamic Registry (recruitment waves: 1997-1988, 1999 and 2001), we investigated differences in baseline risk factors, and acute and 1-year outcomes in non-acute myocardial infarction patients with CHF undergoing their first PCI during two different eras. This study sample is comprised of 117 CHF patients from the 1985-1986 PTCA Registry and 257 CHF patients enrolled in the Dynamic Registry. **Results:** Compared to the 85-86 Registry, patients in the Dynamic Registry with CHF were significantly older and had a higher prevalence of diabetes, prior CABG , triple vessel CAD, and a lower mean EF, but had a higher lesion success rate after PTCA (92.6% vs. 70.9%, p≤0.001). In the Dynamic registry, stents were used in 77% of patients, and there was a significantly higher use of ace inhibitors, aspirin, beta blockers, and statins. The odds and risk ratios of adverse events in the Dynamic compared to PTCA registries follow:

In-Hospital Adjusted	**OR Dynamic vs PTCA Registry**	**CI**	**P Value**
Death	0.35	(0.14-0.91)	<0.05
CABG	0.09	(0.03-0.34)	_0.001
Death/MI/CABG	0.18	(0.09-0.38)	_0.001
1-Year Adjusted	**RR Dynamic vs PTCA Registry**	**CI**	**P Value**
CABG	0.26	(0.12-0.56)	_0.001
Death/MI/CABG	0.55	(0.36-0.85)	<0.01
PCI after discharge/CABG	0.46	(0.28-0.75)	<0.01

Conclusions: While patients with CHF undergoing PCI in the current era have more comorbidities and a lower EF, the in-hospital and long-term outcomes are markedly improved. This is likely due to improved procedural success and improved medical therapy.

1138-65

Identification of Risk Factors for In-Hospital Complications in Patients With Severe Left Ventricular Dysfunction Undergoing Percutaneous Coronary Intervention

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Background: Although coronary artery bypass graft surgery is often used to treat patients with ischemic cardiomyopathy (ICM) and severe left ventricular systolic dysfunction (LVSD), data regarding percutaneous coronary intervention (PCI) with coronary stenting in this high-risk patient population are very limited.
Methods: We retospectively evaluated consecutive patients with ICM and severe LVSD (ejection fraction </= 35%) who underwent PCI with coronary stenting between 1/1/1995 and 12/30/2002. Patients with acute myocardial infarction (MI) were excluded. We compared the frequency of in-hospital complications (in-hospital death, post-PCI MI, and emergent CABG) in patients with severe LVSD (n=1274) and in patients with normal LVEF (>/=50%) (n=6282) by univariate analysis. Predictors of in-hospital complications in patients with severe LVSD were determined by multivariable logistic regression analysis.
Results: Baseline characteristics of patients with severe LVSD included age (68+/-11 years), gender (75% male), LVEF (28+/-7%), diabetes mellitus (39%), prior MI (69%), and prior CABG (46%). The overall rate of in-hospital complications was higher for patients with severe LVSD than for patients with normal LVEF (7.9% vs. 5.5%, p<0.001). For patients with severe LVSD, in-hospital complication rates consisted of 2.2% in-hospital deaths, 5.9% post-PCI MIs, and 0.4% emergent CABG. Independent predictors of in-hospital complications included NYHA class IV symptoms, ACC lesion type B2 or C, renal insufficiency (serum creatinine > 2 mg/dL), and intended SVG intervention (all p<0.05). In our study, 372 patients with severe LVSD (29%) had none of these risk factors. In the absence of these 4 risk factors, the in-hospital complication rate for patients with severe LVSD was 3.5%.
Conclusions: Although patients with severe LVSD have an overall higher risk of in-hospital complications following PCI with stenting, in the absence of several high-risk clinical features, rates of in-hospital complications in patients with severe LVSD versus average patients with normal LVEF are comparable.

1138-66

Can Intravascular Ultrasound Guided Cutting Balloon Angioplasty Before Stenting Be a Substitute for Drug Eluting Stent? Final Results of the Prospective Randomized Multicenter Trial Comparing Cutting Balloon With Balloon Angioplasty Before Stenting (Reduce III)

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Background: Stent restenosis still occurs even in the drug eluting stent (DES) era. IVUS-guided cutting balloon angioplasty (CB) before stenting would offer a favorable long-term outcome similar to DES.
Methods: We randomly assigned 521 anginal patients to either CB before stenting (260 patients) or balloon angioplasty (POBA) before stenting (261 patients). IVUS guided procedures were performed in 279 (54%) patients. All patients were divided into 4 groups according to devices before stenting and either IVUS- or Angio-guidance (IVUS-guided CB-stent; 137 pts, Angio-guided CB-stent; 123 pts, IVUS-guided POBA-stent; 142 pts, and Angio-guided POBA-stent; 119 pts). The primary angiographic endpoint was restenosis (≥50% at follow-up).
Results: Follow-up angiography was performed in 453 patients (87%). An average vessel size was 2.80±0.47mm with no difference among 4 groups (p=ns). IVUS guided CB-stent indicated the lowest restenosis rate (6.6%) in comparison with Angio-guided CB-stent (17.9%, p<.01), IVUS-guided POBA-stent (19.8%, p<.01) and Angio-guided POBA-stent (18.2%, p<.01). Reflecting this phenomenon, overall restenosis rate was significantly lower in all CB-stent than all POBA-stent (11.8% versus 19.1%, p<.05). While baseline vessel area (VA) and lumen area (LA) were similar between the IVUS-CB-stent and IVUS-POBA-stent groups, LA immediately after CB or POBA before stenting (5.29±1.61mm2 vs. 4.15±1.33mm2, p<.05), LA after stenting (7.39±2.29mm2 vs. 6.61±2.04mm2, p<.05) and LA at follow-up (5.26±2.82mm2 vs. 4.41±2.05, p<.05) were consistently greater in IVUS-CB-stent than IVUS-POBA-stent. Multivariate logistic regression analysis to evaluate the respective contributions of clinical, angiographic and IVUS variables to restenosis indicated that use of POBA (not CB) before stenting, DM, LAD lesion and smaller vessel area by IVUS were independent predictors for restenosis.
Conclusions: Greater lumen obtained by IVUS-guided CB could convey a favorable long-term outcome. While among 4 groups IVUS-guided CB-stent indicated the lowest restenosis rate (6.6%) similar to those obtained by DES, IVUS-guided CB-stent can be a substitute for DES in some clinical settings.